NAVSEA
STANDARD ITEM

FY-15

ITEM NO: 009-11
DATE: 17 JAN 2013
CATEGORY: II

1. SCOPE:

1.1 Title: Insulation and Lagging Requirements; accomplish

2. REFERENCES:

2.1 Standard Items

2.2 MIL-STD-769, Thermal Insulation Requirements for Machinery and Piping

2.3 804-5959212, Surface Ship Machinery Insulation - Installation Details

2.4 804-5959214, Piping Insulation - Installation Details

2.5 804-5773931, Insulation for Compartments, Acoustic and Thermal Installation Details

2.6 804-5773932, Insulation for Ducts, Acoustic and Thermal, Installation Details

2.7 803-5184182, Insulation, Passive Fire Protection - Installation Details

2.8 46 CFR Part 164, Materials

2.9 S4823-C-3160935, Fasteners for Insulation and Lagging

3. REQUIREMENTS:

3.1 Install new insulation, lagging, and reusable covers in accordance with 2.2 through 2.7, and the following:

3.1.1 Use of elastomeric foam conforming to MIL-P-15280 and polyphosphazene conforming to MIL-I-24703 is not permitted.

3.1.2 MIL-PRF-22344 insulation shall not be installed on hot piping above one-inch nominal pipe size (nps) and shall be installed only on piping with a vertical orientation or in low traffic areas.

3.1.3 Install Electric Boat Specification No. 4013 Anti-Sweat and Refrigerant Insulation Systems (EB Spec. 4013 or equal) on anti-sweat and refrigeration piping systems that have an operating temperature of minus 20 degrees to 180 degrees Fahrenheit.

3.1.3.1 Install with adhesive conforming to MIL-A-24179.

3.1.3.2 Install rewettable fibrous glass cloth lagging conforming to MIL-C-20079, Type I, Class 6 or 8, in high traffic areas. In addition to the requirements of MIL-C-20079, rewettable lagging shall meet the requirements of Section 164.009-3 of 2.8, unless otherwise approved by NAVSEA.

3.1.4 Utilize Polyimide foam insulation conforming to DOD-I-24688, Type I, for piping and machinery systems other than systems listed in 3.1.3, and with a maximum operating temperature of 400 degrees Fahrenheit.

3.1.5 Accomplish the requirements of 009-12 of 2.1.

3.1.6 Accomplish the requirements of 009-32 of 2.1 for surfaces to be insulated with the exception of non-ferrous and corrosion resistant steel (CRES) piping.

3.1.7 Secure reusable covers using snap fasteners or laced with copper, brass or soft steel galvanized wire through hooks or rings in accordance with 2.9.

3.1.7.1 Stamp the surface of the lacing washers, piece 200 of 2.8, on the reusable cover with one quarter inch high letters, NO AB, located close to the outer edge of the washer and visible when the reusable cover is installed.

3.2 Accomplish the requirements of 009-32 of 2.1 for new insulation, lagging, and reusable covers to match surrounding areas.

4. NOTES:

4.1 Known source for EB Spec. 4013:

General Dynamics Company
Dept. 447 Material Services
Attn: K. Hamler
75 Eastern Point Road
Groton, CT 06340-4899
Tel: 860-433-2373

4.2 Known sources for rewettable fibrous glass cloth lagging:

BGF Industries, Inc.
3802 Robert Porcher Way
Greensboro, NC 27410
Tel: 800-925-1961

Alpha Associates
Two Amboy Avenue
Woodbridge, NJ 07095
Tel: 732-634-5700